WHAT IS CLAIMED IS

Sub B39

1. A data broadcast system comprising a data broadcasting device provided in a broadcasting station which broadcasts multimedia data and a receiving terminal device receiving the multimedia data broadcast from the data broadcasting device,

wherein said data broadcasting device comprises;

data analyzing means for analyzing the contents of said multimedia data and generating output attribute data corresponding to said multimedia data, and

data transmitting means for broadcasting said multimedia data together with said output attribute data, and

said receiving terminal device comprises;

receiving means for receiving said multimedia data and said output attribute data which are broadcast,

data managing means for managing and storing said multimedia data and said output attribute data which are received, and

data output means for outputting said multimedia data together with its attribute information by referring to said output attribute data.

2. The data broadcast system according to claim 1, wherein said data broadcasting device further comprises means for embedding said output attribute data generated by said data analyzing means in said multimedia data, and

said data transmitting means broadcasts said multimedia data in which said output attribute data is embedded.

3. The data broadcast system according to claim 2, wherein said receiving terminal device further comprises data extracting means for extracting from said received multimedia data said output attribute data embedded therein and outputting said output attribute data to said data managing means, and

said data managing means manages said output attribute data extracted by said data extracting means separately from corresponding said multimedia data.

4. The data broadcast system according to claim 1, wherein said receiving terminal device further comprises data analyzing means for analyzing the contents of said received multimedia data and newly generating said output attribute data about said multimedia data.

5. The data broadcast system according to claim 1, wherein

said data managing means further manages a state of reception about data linked to said multimedia data, and

said data output means outputs a state of data linked to said multimedia data by referring to said state of reception as well as said output attribute data.

6. The data broadcast system according to claim 1, wherein when said multimedia data is data in an HTML format,

said output attribute data comprises information about data linked to said multimedia data, concerning at least one of its file name, the number of images contained therein, its data size, and the number of data pieces further linked thereto.

7. The data broadcast system according to claim 1, wherein when said multimedia data is data in an JPEG format,

said output attribute data comprises information about at least one of data type of said multimedia data (a natural painting or a line drawing) and a recommended screen size suited to display of said multimedia data.

8. A data broadcasting device provided in a broadcasting station which broadcasts multimedia data, said data broadcasting device comprising:

data analyzing means for analyzing the contents of said multimedia data and generating output attribute data about said multimedia data, and

data transmitting means for broadcasting said multimedia data together with a corresponding piece of said output attribute data.

9. The data broadcasting device according to claim 8, further comprising means for embedding said output attribute data generated

by said data analyzing means in said multimedia data,

wherein said data transmitting means broadcasts said multimedia data in which said output attribute data is embedded.

10. The data broadcasting device according to claim 8, wherein when said multimedia data is data in an HTML format,

said output attribute data comprises information about data linked to said multimedia data, concerning at least one of its file name, the number of images contained therein, its data size, and the number of data pieces further linked thereto.

11. The data broadcasting device according to claim 8, wherein when said multimedia data is data in a JPEG format,

said output attribute data comprises information about at least one of data type of said multimedia data (a natural painting or a line drawing) and a recommended screen size suited to display of said multimedia data.

12. A receiving terminal device which receives multimedia data broadcast together with output attribute data, said receiving terminal device comprising:

receiving means for receiving said multimedia data and said output attribute data which are broadcast,

data managing means for managing and storing said multimedia data and said output attribute data which are received, and

data output means for outputting said multimedia data together with its attribute information by referring to said output attribute data.

13. The receiving terminal device according to claim 12, further comprising data extracting means for, when said output attribute data is embedded in said multimedia data, extracting from said received multimedia data said output attribute data embedded therein and outputting said output attribute data to said data managing means,

wherein said data managing means manages said output attribute data extracted by said data extracting means separately from corresponding said multimedia data.

14. The receiving terminal device according to claim 12, further comprising data analyzing means for analyzing the contents of said received multimedia data and newly generating said output attribute data about said multimedia data.

15. The receiving terminal device according to claim 12, wherein

said data managing means further manages a state of reception about said multimedia data, and

said data output means outputs a state of data linked to said multimedia data by referring to said state of reception as well as

said output attribute data.

16. A receiving terminal device which receives broadcast multimedia data, comprising:

receiving means for receiving said broadcast multimedia data,

data analyzing means for analyzing the contents of said received multimedia data and generating output attribute data about said multimedia data,

data managing means for managing and storing said received multimedia data and said generated output attribute data, and

data output means for outputting said multimedia data together with its attribute information by referring to said output attribute data.

17. A data communication system comprising a data communication device for transmitting multimedia data in a JPEG format and a receiving terminal device receiving the multimedia data transmitted from said data communication device, wherein

said data communication device comprises;

data analyzing means for analyzing the contents of said multimedia data and generating output attribute data about said multimedia data, and

data transmitting means for transmitting said multimedia data together with a corresponding piece of said output attribute data, and

said receiving terminal device comprises;

receiving means for receiving said multimedia data and said output attribute data which are transmitted,

data managing means for managing and storing said multimedia data and said output attribute data which are received, and

data output means which determines a method of displaying said multimedia data by referring to said output attribute data.

18. The data communication system according to claim 17, wherein

said data communication device further comprises means for embedding said output attribute data generated by said data analyzing means in said multimedia data, and

said data transmitting means transmits said multimedia data in which said output attribute data is embedded.

19. The data communication system according to claim 18,

wherein said receiving terminal device further comprises data extracting means for extracting from said received multimedia data said output attribute data embedded therein and outputting said output attribute data to said data managing means, and

said data managing means manages said output attribute data extracted by said data extracting means separately from corresponding said multimedia data.

20. The data communication system according to claim 17, wherein

said data analyzing means generates said output attribute data showing data type of said multimedia data (a natural painting or a line drawing), and

said data output means determines whether or not to apply dithering to said multimedia data when displaying said multimedia data on the basis of said data type.

21. The data communication system according to claim 17, wherein

said data analyzing means generates said output attribute data showing a recommended screen size suited to display of said multimedia data, and

said data output means determines whether or not to apply dithering to said multimedia data when displaying said multimedia data on the basis of a result of comparison between said recommended screen size and the size of a screen in which said multimedia data is actually displayed.

22. A data communication device which makes communications of multimedia data in a JPEG format, said data communication device comprising:

data analyzing means for analyzing the contents of said multimedia data to generate output attribute data comprising

information about at least one of data type of said multimedia data (a natural painting or a line drawing) and a recommended screen size suited to display of said multimedia data; and

data transmitting means for transmitting said multimedia data together with corresponding said output attribute data.

23. The data communication device according to claim 22, further comprising means for embedding said output attribute data generated by said data analyzing means in said multimedia data,

wherein said data transmitting means transmits said multimedia data in which said output attribute data is embedded.

24. A receiving terminal device which receives multimedia data in a JPEG format which is transmitted together with output attribute data, said output attribute data comprising information about at least one of data type of said multimedia data (a natural painting or a line drawing) and a recommended screen size suited to display of said multimedia data, said receiving terminal device comprising:

receiving means for receiving said multimedia data and said output attribute data which are transmitted;

data managing means for managing and storing said multimedia data and said output attribute data which are received; and

data output means which determines a method of displaying said multimedia data by referring to said output attribute data.

25. The receiving terminal device according to claim 24, further comprising data extracting means for, when said output attribute data is embedded in said multimedia data, extracting from said received multimedia data said output attribute data embedded therein and outputting said output attribute data to said data managing means,

wherein said data managing means manages said output attribute data extracted by said data extracting means separately from corresponding said multimedia data.

26. The receiving terminal device according to claim 24, wherein said data output means determines whether or not to apply dithering to said multimedia data when displaying said multimedia data on the basis of said data type.

27. The receiving terminal device according to claim 24, wherein said data output means determines whether or not to apply dithering to said multimedia data when displaying said multimedia data on the basis of a comparison between said recommended screen size and the size of a screen in which said multimedia data is actually displayed.

28. A receiving terminal device which receives transmitted multimedia data in a JPEG format, comprising:

receiving means for receiving said transmitted multimedia data;

data analyzing means for analyzing the contents of said received multimedia data to generate output attribute data about data type (a natural painting or a line drawing) of said multimedia data;

data managing means for managing and storing said received multimedia data and said generated output attribute data; and

data output means which determines a method of displaying said multimedia data by referring to said output attribute data.

29. A recording medium on which a program to be executed on a computer device is recorded for realizing an operation environment on said computer device, the program comprising the steps of:

receiving multimedia data and output attribute data accompanying said multimedia data;

managing and storing said multimedia data and said output attribute data received; and

outputting said multimedia data together with its attribute information by referring to said output attribute data.

30. A recording medium on which a program to be executed on a computer device is recorded for realizing an operation environment on said computer device, the program comprising the steps of:

analyzing the contents of multimedia data in a JPEG format to generate output attribute data comprising information about at least one of data type of said multimedia data (a natural painting or a line drawing) and a recommended screen size suited to display of said

multimedia data; and

transmitting said multimedia data together with corresponding said output attribute data.

31. A recording medium on which a program to be executed on a computer device is recorded for realizing an operation environment on said computer device, the program comprising the steps of:

receiving multimedia data in a JPEG format and output attribute data comprising information about at least one of its data type (a natural painting or a line drawing) and a recommended screen size suited to its display;

managing and storing said multimedia data and said output attribute data received; and

determining a method of displaying said multimedia data on the basis of said output attribute data.